

# 1. Diversity and Natural Abundance in the Mekong Basin

## 1-1. The Mekong River's Natural Environment

### The Natural Environment in the Mekong Basin

The Mekong River is an international waterway that begins in the Tibetan Plateaus and flows through the Mekong Delta into the South China Sea, and it is second only to the Amazon in aquatic biodiversity (Peterson and Middleton 2010). Along with 850 species of fish, there are 20,000 species of plants, 430 animal species, 1,200 bird species, and 800 reptile and amphibian species that live there (Thompson 2008). The entire river basin is 795,000 km<sup>2</sup> and has a length of 4,909 km (MRC 2000: 5).



Figure 1: Mekong River

The distance between the source of rivers and the deltas in Japan is relatively short, and in comparison, the Mekong flows a very long distance (Tone River Management Office of the Ministry of Land, Infrastructure, Transport, and Tourism, Kanto Regional Development Bureau). One of the Mekong's unique characteristics is that in spite of its length, there is not much difference in altitude between the upstream (not including the river's source) and the delta.

The Mekong River passes through the 6 countries of China (Qinghai and Yunnan Provinces), Burma/Myanmar<sup>1</sup>, Laos, Thailand, Cambodia, and Vietnam, and then flows into the sea. In upstream China, the headstreams of three of the world's great rivers, the Yangtze, Mekong, and Salween flow in close proximity, and this geography is known as the "Three Parallel Rivers." The Mekong River then enters Laos, flows along the border of Burma and Laos, and then after flowing along the Thai-Lao border, enters Cambodia where it connects with the Tonle Sap Lake, a symbol of Cambodia. It then enters Vietnam, where it is known as "Nine Dragons River." The Mekong Delta in Vietnam is one of the world's largest rice production areas, and from there, the Mekong flows into the South China Sea.

The Mekong originates with melting snow from the Himalayas. Water from the river’s catchment area in China makes 16% of the river’s flow, and Burma 2%, Laos 35%, Thailand 18%, Cambodia 18%, and Vietnam 11% (MRC 2005).

	China	Burma	Lao PDR	Thailand	Cambodia	Vietnam	Entire Region
Catchment area (km <sup>2</sup> )	165,000	24,000	202,000	184,000	155,000	65,000	795,000
Catchment (% of entire watershed)	21	3	25	23	20	8	100
Volume (% of entire watershed)	16	2	35	18	18	11	100

Table: Comparison of 6 Countries in the Mekong River’s Catchment Area (MRC 2005:1).

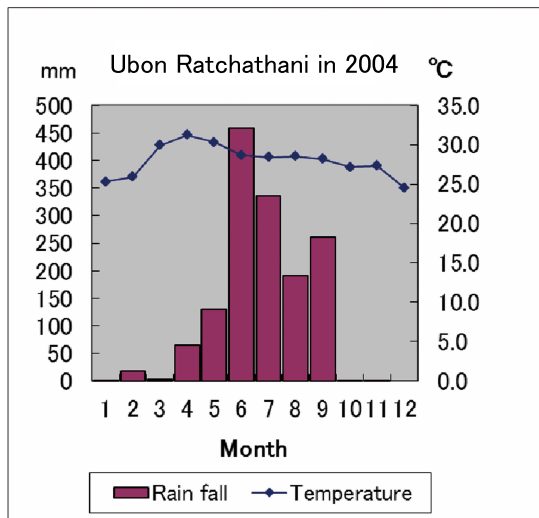


Figure 2: Temperature and Rainfall in Ubon Ratchathani Prefecture (Thai Meteorological Department of Ubon Ratchathani 2004)

The Mekong River Basin has a tropical monsoon climate. From mid-May to October, the southwest monsoon brings the rainy season. From November to mid-March, the region is affected by the northeast monsoon to bring the dry season (MRC 2010: 14). The dry season continues until April, and then again in May the rains fall signalling the beginning of the wet season. Aside from the area in China, the hottest time of year is around April.

Annual rainfall in northeast Thailand’s Ubon Ratchathani Province is 1,500 mm. This is approximately the same as Tokyo, but as one can see from Figure 2, rainfall is concentrated between May and September. From October, there is almost no rainfall until May the following year when the

wet season begins. The Mun River, which flows through Ubon Ratchathani, is influenced by this rain pattern, so water levels rise in May to peak in October. Then from November to April, the water levels again gradually decrease.

**References**

Mekong River Commission (MRC). 2005. *Overview of the Hydrology of the Mekong Basin*. <http://www.mekonginfo.org/assets/midocs/0001968-inland-waters-overview-of-the-hydrology-of-the-mekong-basin.pdf>

Mekong River Commission (MRC). 2010. *State of the Basin Report 2010*. <http://www.mrcmekong.org/assets/Publications/basin-reports/MRC-SOB-report-2010full-report.pdf>

Peterson, B., and C. Middleton. 2010. *Feeding Southeast Asia: Mekong River Fisheries and Regional Food Security*. Berkeley, California: International Rivers (IR). [http://www.internationalrivers.org/files/attached-files/intrivers\\_mekongfoodsecurity\\_jan10.pdf](http://www.internationalrivers.org/files/attached-files/intrivers_mekongfoodsecurity_jan10.pdf)

Thompson, C. 2008. *First Contact in the Grater Mekong*. World Wildlife Fund (WWF) Greater Mekong Programme. [http://awsassets.panda.org/downloads/first\\_contact\\_final\\_report.pdf](http://awsassets.panda.org/downloads/first_contact_final_report.pdf)

Tone River Management Office of the Ministry of Land, Infrastructure, Transport, and Tourism, Kanto Regional Development Bureau. *What are the Unique Characteristics of Japan’s Rivers?* (in Japanese). <http://www.ktr.mlit.go.jp/tonedamu/tonedamu00082.html> (Last accessed on September 30, 2012)

**Yuka Kiguchi**

1. Through the remainder of this Briefing Paper (BP), simply “Burma” will be used.